

THE JOURNAL  
OF  
THE LINNEAN SOCIETY.

---

On the Geographical Distribution of the Accipitres.  
By R. BOWDLER SHARPE, F.L.S., F.Z.S., &c.

[Read February 3, 1876.]

(PLATES I.-IX.)

Part I. *The* VULTURIDÆ.

THE following papers will form a supplement to the British-Museum 'Catalogue of Birds.' In the latter volume a classification of the Accipitres is unfolded; and I now propose to treat of the geographical distribution of the birds described in the first volume of that work; for until a classification has been determined upon, my experience tells me that it is impossible to treat of the distribution of the feathered tribes over the earth's surface. I am at the same time aware that several writers have called in question my arrangement of the birds of prey, notably that conscientious and indefatigable naturalist Mr. Robert Ridgway; but I have as yet found no reason to modify my conclusions in any serious degree; and I therefore feel pleased to have an opportunity of expounding my system of classification of the Accipitres, feeling, as I do, that the consideration of their geographical distribution will confirm the views expressed in the work above alluded to.

It is here necessary only to state that I divide the birds of prey into three distinct groups, which I consider to be of the rank of suborders. These are Hawks, Ospreys, and Owls. The second and the last have a remarkable osteological character in common in the long tibia, which is more than double the length of the tarsus; and they have at the same time the outer toe reversible. These

points seem to me to be of the first importance; and as further characters can be found for the separation of the Owls from the other birds of prey, it seems to me natural to consider the Ospreys as Accipitres with an owl-like structure and the habits of Fishing Eagles; and thus they would naturally occupy an intermediate position between the Owls and the great mass of the diurnal birds of prey.

The first of my suborders, the Falcones, is much the largest of the three, and may be divided into two primary groups—Vultures (Vulturidæ) and Hawks (Falconidæ). The former have never any *true* feathers on the crown of the head, this part being either quite bare or covered with silky down. In habits, the American Vultures so closely resemble those of the Old World, that I cannot bring myself to consider them anything but *Vultures*, though admitting that they are very aberrant in their structure. I therefore still keep them in the family Vulturidæ, and divide these birds into two subfamilies, one of them (Vulturinæ) containing the Old-world vultures, and the other (Sarcorhamphinæ) containing the American species. It is with the geographical range of these birds that we now propose to deal.

### 1. VULTUR MONACHUS. (Map I.)

V. MONACHUS, *L.*; *Sharpe, Cat. B. i. p. 3.*

For the distribution of the Cinereous Vulture see Dresser's 'Birds of Europe' (pt. xiii.); but observe that the bird does not visit West Africa as there stated. The vulture mentioned by Fraser under the name of *V. monachus* is the small form of African Hooded Vulture, *Neophron monachus* (Temminck), peculiar to the Ethiopian region, into the north-eastern portion of which alone the present species ranges.

#### PALÆARCTIC REGION.

*France.* Occurs accidentally in Provence, Languedoc, and Dauphiné (*Degland & Gerbe*); inhabits the Spanish Pyrenees as well as the French, where it arrives in June, departing in October. It is not, however, uncommon on a fine winter day to see them appear in the neighbourhood of Bagnères-de-Bigorre, which fact seems to indicate that at least some individuals winter, if not in the French, at any rate in the Spanish Pyrenees. The localities which it seems to prefer in the western chain of these mountains are, according to M. Darracq, Mounts Orsamendi, Mousson, Reiboura, La Rhum, and especially the Aldules. . . . A large band of them passed near Angers in October 1839, computed to number 100 individuals,

of which three were secured; and a still larger band was said to have passed two years previously. Both came from the north and journeyed towards the Pyrenees (*Jaubert et Barthélemy-Laponmeraye*).

*Spain.* By no means rare throughout Andalucia (*Saunders*); Castilles (*Lilford*); near Marbella and Cordova (*Lilford*); on the Spanish side of the Straits frequently to be seen in winter and early spring, though not nearly so common as the Griffon Vulture; it is more common near Seville than Gibraltar; some breed in Andalucia. Found by Lord Lilford nesting near Madrid (cf. *Irby's B. Gibr.* p. 28).

*Portugal.* Portugal (*Bocage*); Benavente (*Welwitsch*); Alemtejo (*Mira*); Collares (*Menezes*). Cf. *Souza, Cat. Accipitr. Lisb. Mus.* p. 30.

*Balearic Isles.* Resident in Mallorca (*Saunders*).

*Switzerland and Savoy.* Very rare in both these countries (*Bailly*).

*Italy.* Accidental in the Apennines; two specimens killed near Saronna, according to Durazzo; two killed in May 1863, near Ripatransone, in the province of Ascoli-Piceno (*Salvadori*).

*Sardinia.* Commonest Vulture in the island (*Brooke*).

*Austrian Empire.* Rarer than the Griffon, and occurs but seldom in the northern and western portions, Kloubouker district (*Brünner-Kreis*); Steinburg, in Carinthia; Southern Styria, accidental, once near Pettau; not rare in Siebenbürgen; doubtful whether it breeds in the High Tatra, Galicia; Hungary, near Ofen, common in the south (*Von Tschudi*); Banat (*Zebebor, Mus. Wien*). Cf. *Pelzeln, Geier und Falk.* p. 126.

*Bohemia.* Very rare (*Fritsch, J. f. O.* 1871, p. 175). Comes from the east; König-grätz; the Georgsberg near Laudnic; near Leitomitschl (*Fritsch*).

*Germany.* Once in Schleswig, once in Ober Lausitz, once in E. Prussia (*Borggreve*), Frankstadt (*Mähren*) in the end of May 1873; Hochwald, not far from Frankstadt; about the same time near Bielitz, Silesia, on the authority of Prof. Tolsky (*Von Tschusi, J. f. O.* 1874, p. 341).

*Kurland.* Shot by Forester Tamma (*Goebel, J. f. O.* 1873, p. 8).

*Poland.* Kielce and Rakolupy in the Government of Lublin; near Warsaw; near Lomze (*Taczanowski*).

*Turkey.* By no means a common species in Central Bulgaria; breeds in the thickly wooded hills that border on the Pravidy Valley (*Farman*); plentiful on the southern Danube (*Dresser*); common in Macedonia and Bulgaria, numerous in February (*Elwes & Buckley*); very common on the Bosphorus during migration (*Alléon & Vian*).

*Greece.* Breeds in Attica from Corinth to Livadia, resident also in winter (*Lindermayer*); breeds in the Cyclades, leaving in winter (*Erhardt*); Ionian Islands (*Lilford*).

*Southern Russia.* Steppes of Bessarabia (*Nordmann*); Crimea [?] (*Nordmann*); Tiflis (*Radde*). Sabanäeff did not meet with it in the southern Ural.

*Asia Minor.* Xanthus (*Fellows*); "only of very rare occurrence near

Smyrna in summer; but I think I have seen it with other Vultures near Kaias (*Krüper, J. f. O.* 1869. p. 23).

*Cyprus.* (*Mus. Berol.*).

*Palestine.* By no means common, but a few scattered over the country (*Tristram*).

*Egypt.* Throughout the country, but nowhere abundant (*Shelley*). Von Heuglin only once saw it, near Benisouef, and considers it to be a very rare straggler.

*Algeria.* Not common, only seen singly or in pairs (*Loche*); in the mountainous parts, more especially in the neighbourhood of Constantine (*Taczanowski, J. f. O.* 1870, p. 36).

*Morocco.* Once near Tangier (*Favier*); a specimen, perhaps the identical one obtained by Favier, is in the Norwich Museum from Tangier (*Irby B. Gibr.* p. 28).

*Northern Persia* (*Blanford*).

*Turkestan.* All over the country, breeding. Found during the winter season in the north-western and south-western divisions of the country (*Severtzoff*). Cf. *Dresser, Ibis*, 1875, p. 98.

*India.* By no means rare throughout the north-west provinces, becoming more common in the country north-west of Delhi in the cold weather (*Jerdon, Ibis*, 1871, p. 234). Throughout the Punjaub, N.W. Provinces, Oudh, and Rajpootana, north-west of the Avavalli Hills in the cold weather, being most abundant in the far north-west, and becoming less and less common as you proceed south and west; a few specimens met with in that portion of the Central Provinces known as the Sagar and Nerbuddah territories, and in the northern or Shikarpoor collectorate of Sindh (*Hume*); once about twenty miles north of Ahmedabad (*Butler*); not yet received or heard of from Jodhpoor, Cutch, Kattiawar, or Sindh; and though it may doubtless occur within this vast tract, it can only be as a rare straggler (*Hume*); met with in the cold weather near the Sambhur lake (*Adam, S. F.* 1873, p. 367); once at Ajmere, and further north in Rajpootana it is not uncommon (*Hume*); Nepal (*Hodgson*); Darjeeling (*Jerdon*); Bhotan (*Hume*); Assam (*Jenkins, Mus. Calc.*).

*Mongolia* (*David*).

*China.* Peking (*David*); Ningpo (*Swinhoe, Mus. Brit.*); mouth of the Shanghai river and Chusan archipelago (*Swinhoe*).

## 2. GYPS FULVUS. (Map II.)

*G. FULVUS* (*Gm.*); *Sharpe, Cat. i.* p. 5.

The Griffon Vulture is here considered as one species, for after Mr. Gurney's observations (*Ibis*, 1875, pp. 88, 89) I do not think that my proposed separation of the Spanish bird as a distinct race can be upheld. In fact the way in which the Griffons wander would render it difficult to draw the exact range of one of the

*G. fulvus* group; and therefore I relinquish the name *G. hispaniolensis*; but at the same time the Spanish birds now alive in the Zoological Gardens show no inclination to paler colouring as they get older, but have the rufous coloration which induced me first to separate them. I further stated my belief that the Algerian Griffon (and probably the bird from North-east Africa also) would prove to be the same as *G. hispaniolensis* from Southern Spain. As to their habits of wandering, Canon Tristram says that during the Crimean war the Arabs believed that "the Vultures from all North-east Africa were gathered together to feed on Russian horses in the Crimea, and declare that very few 'Nissr' were to be seen in their accustomed haunts." Nor is the Spanish Vulture free from these erratic habits; for Mr. Howard Saunders, writing of his trip to Southern Spain in 1868, says, "it had been a bad year for Vultures generally (they were away in Morocco feeding on Moors and Riffites)." I depended a great deal on the restricted habitat of *G. hispaniolensis* as a special feature; but if the bird wanders as stated above, then it is worthless; and moreover Mr. Gurney's researches (*l. c.*) tend to prove that the value of the Spanish bird as a race is very doubtful. Still the question is undoubtedly not yet settled, and a larger series will be necessary to determine the matter. I may remark, *en passant*, with regard to Mr. Gurney's statement that in the event of *G. hispaniolensis* proving distinct it must be called *G. occidentalis*, Bp., that this is certainly *not* so; for Bonaparte's name is taken from Schlegel's *Vultur fulvus occidentalis*, the types of which exist at Leiden, and are inseparable from the East-European bird. Pyrenean specimens *may* be the same as Sardinian; but my *G. hispaniolensis*, be it remembered, is the bird from Southern Spain.

#### PALÆARCTIC REGION.

*Great Britain.* Once, on the rocks near Cork Harbour. (For particulars, see Newton's edition of Yarrell's 'British Birds.')

*France.* Twice, in the department of the Seine Inférieure, in a plain at Saint Romain de Colbose, and near Bolbec (*Lemetteil*). Of frequent occurrence in Provence, and occasionally in Languedoc, Dauphiné, and the north of France; one killed near Armenbières in July 1828, and a young bird killed near Abbeville (*Baillon*); mountains of Provence, l'Ardèche, the Pyrenees, and especially the Cevennes; only a very accidental visitor in Savoy in autumn and spring. The localities where it has been met with are the mountains adjacent to Montiers, those of the Bauges, especially

those which feed large flocks of kids or sheep, such as the mountains of Tréloz, Orgeval, Rosannaz, and those of Faucigny, whence in 1846 M. Louis Coppier received a young male captured at Chamounix (*Bailly*); a regular migrant in the south of France (*Jaubert et Barthélemy-Lapommeraye*).

*Lorraine.* Very rare (*Godron*); killed once near Rémilly in 1842 (*Hollandre*).

*Spain.* Common in Southern Spain (*Saunders*); very plentiful near Gibraltar, nesting in colonies (*Irby*); Guadalquivir river (*Lilford*); Sierra de la Palmiterra near Marbella (*Lilford*).

*Portugal.* Said to be common in the southern districts, and seen on several occasions in the plains of Alemtejo (*Smith*); common in the last-named locality (*Bocage*).

*Italy.* Resident in the Alps of Nice and in Sicily, and of accidental occurrence all over Italy (*Salvadori*).

*Sardinia.* By no means uncommon; resident and breeding (*A. B. Brooke*).

*Austria.* Often plentiful in Southern Hungary, Dalmatia, and Servia (*Fritsch*); Zwolfaxing (*Brezenheim*); breeding in the Banat (*Zebebor*); cf. *Pelz. Sitz. z.-b. G. Wien*, 1862, p. 129; a male procured at Neutitschein (Mähren) in October 1873 (*Von Tschusi*).

*Bohemia.* Comes from the eastward, particularly from Galicia and Hungary (*Fritsch. J. f. O.* 1871, p. 175).

*Germany.* Of accidental occurrence nearly all over Germany; Ober-Lausitz; Oldenburg, near Münster; Dantzic, &c. (*Borggreve*).

*Poland.* Rarer than *Vultur monachus*; near Samosé; near Warsaw (*Taczanowski*).

*Russia.* Courland; killed in the Mitau district (*Goebel*). According to Mr. Dresser, it was found by Sabanæff "in the Kaslinsky Ural, where it breeds; and he further states that it ranges as high as 59° N. lat., having been obtained in the Pavdinskaia Dacha. He records the capture of one within sixty miles of Moscow in 1841, and says that sportsmen have assured him that they have seen this species in the district of Jaroslaf, which he thinks may have been the case. He also speaks of it as an annual migrant in the Government of Voronege." Uman, observed on the 26th of April, 1871 (*Goebel, J. f. O.* 1873, p. 131); near Tifis (*Radde*); more or less common on all the shores of the Black Sea, more abundant in Bessarabia, only in small numbers on the mountains which border the south coast of the Crimea (*Nordmann*); abundant near Sevastopol in 1854 (*G. C. Taylor*).

*Turkey.* One of the commonest birds throughout Central Bulgaria; particularly partial to the Pravidy Valley (*Farman*); common in Macedonia and Bulgaria (*Elwes & Buckley*); common during migration, passing the summer in the interior, some few remaining (*Alléon*).

*Greece.* Resident (*Lindermayer*); abundant in Epirus (*Lilford*); Athens (*Merlin*); numerous near Missolonghi; breeds at Mount Varassoro and in the Klissouras of Aracynthus (*Hudleston*).

*Crete* (*J. H. Gurney*).

*Syria.* Beyrout (*Lauretta*).

*Palestine.* Common all over the country; plentiful in the hill-country of Judæa, and observed breeding in some ravines near the Dead Sea (*Tristram*).

*Egypt.* Plentifully distributed throughout Egypt and Nubia (*Shelley*).

*Tunis.* Not noticed in this regency (*Salvin*); occurs here and in Fez (*Von Heuglin*).

*Algeria.* Throughout the country (*Loche*); first seen at Souk Harras; several pairs also seen at Djebel Dekma and at "Khifan, Msakta;" very plentiful at Kef Laks and in the neighbourhood (*Salvin*); Laghouat (*J. H. Gurney, jun.*); Sahara (*Tristram*).

*Morocco.* Common at Tetran (*Drake*); occurs commonly in Tangier, both as a resident and on passage (*Favier*). "I did not see many Griffons in Morocco; but there were a few near Jebel Moosa in April" (*Irby*).

*Central Africa* (*Denham, Mus. Brit.*).

#### ETHIOPIAN REGION.

*N.E. Africa.* Resident along the coast of the Red Sea to 16° N. lat.; the whole of Egypt and Nubia; Abyssinia to 12,000 feet; singly in Kordofan, and on the Lower Blue and White Niles (*Von Heuglin*); Senafe in April; common in the Abyssinian highlands (*Jesse*); common in Samhar and on the Barka (*Antinori*). A species called the "Armed Vulture" is mentioned by Browne in his 'African Travels,' and is said to be extremely frequent in the country of Darfur, where it flies about in thousands (*cf.* 'Discoveries in Africa,' p. 441, 1849). This is perhaps the Griffon.

*Arabia.* Near Akabah, Peninsula of Sinai (*Wyatt*).

*Persia.* Plentiful in the mountainous parts and at Demavend (*De Filippi*); Southern Persia (*Blanford*).

*Turkestan* (*Severtzoff*). Dr. Severtzoff, one of the keenest ornithological observers I have ever met, seems to consider the Turkestan Griffon distinct; for he proposed the name of *G. rutilans* for it at one time (*cf.* J. f. O. 1870, p. 382 &c.).

#### INDIAN REGION.

*India.* Mr. Hume has named the Griffon of India *Gyps fulvescens*, on account of its persistent bay colour; and I must say that the specimens in the Museum bear evidence of its distinctness. Taking into consideration the above observations of Dr. Severtzoff, the Indian Griffon (which, like *G. himalayensis* and *Otogyps calvus*, doubtless finds its way to Turkestan) is most probably distinct. Mr. Hume says, "I have found this bird very common throughout the Punjaub, Northern Rajpootana, and the north-western provinces, north and west of Etawah; and Colonel Tytler

has a young bird from Oraicee." As far as I can yet judge, it is essentially the vulture of the desert. In richly cultivated tracts, far from any sandy wastes, it is rare; but in the lower portions of the North-western Provinces and the Punjab it is common, and in and on the borders of Bawalpoor, Bikaneer, Jodhpoor, and Northern Jaipoor it abounds." Captain C. Marshall has found it breeding near Lahore. In Sindh, writes Mr. Hume, "this was the only species of Vulture that I actually shot and identified; but other species doubtless occur. Vultures, however, are very rare in Sindh, compared with what they are in Upper India." He then gives additional evidence as to the distinctness of *G. fulvescens* (cf. *Str. F.* 1873, pp. 148-150). Common near the Sambhur lake (*Adam*). Captain Butler, in his paper "On the Birds of Mount Aboo and Northern Guzerat," includes the true *Gyps fulvus* as "common on the plains," and he says that *G. fulvescens* of Hume is not very common. Mr. Hume observes that the latter species has been shot by himself at Deesa and Jodhpoor, and he has received it from Cutch, Kattiawar, and Sindh. With regard to Captain Butler's observation, it is worthy of note that he, a good field-naturalist, is acquainted with two species of Griffon on the plains of North-western India; and this is an additional argument in favour of the recognition of *G. fulvescens*. Kumaon (*Strachey*). Nepalese examples collected by Mr. Hodgson are in the British Museum. It is said to have been procured by Griffith in Assam; but Mr. Blyth suggests that, as Mr. Griffith also collected in Afghanistan, the Griffon may have come from the latter place, owing to some misapprehension as to the locality.

*Upper Pegu*. Perhaps occurs here. Cf. *Hume, Str. F.* 1875, p. 18.

### 3. GYPS HIMALAYENSIS. (Map III.)

*G. HIMALAYENSIS*, *Hume; Sharpe, Cat. B.* i. p. 8.

*Hab.* Himalaya Mountains from Cabool to Bhootan; breeds in the Himalayas in January, February, and March (*Hume*). Nepal (*Hodgson, Mus. Brit.*). "Not common between Gangaotri and Mussoorie; occasionally seen seated on its nest above the road, but so high up that it was almost out of rifle-shot, and at the opposite side of the narrow glen in which the river there runs. But for the white mark on the rock caused by the dung of the bird, I should not have noticed it. . . . All the nests of this bird which I saw were inaccessible; and whether they contained young or not I could not tell. None of them occurred below Barabath; every the above referred to was not far from Danguli (*Brooks*); Major Lloyd noticed a Griffon about the cliffs and valleys of the Geerwar (Kattiawar) which he thinks may be this species (*Ibis*, 1873, p. 402). Turkestan; resident in the north-eastern district "comprising Semiratchje, Issikkul, the Upper Narin, Acksay, Kopal, and Vernoe" (*Severtzoff, cf. Dresser, Ibis*, 1875, p. 97). Its vertical range in Turkestan is "A winter visitant in district 3, a resident in district 4, where it breeds, and probably nests in districts 3, 4, and 5" (*Severtzoff, l. c.*). (For the explanation of the vertical range, *vide Dresser, l. c.*)



## 4. GYPS KOLBI. (Map III.)

G. KOLBI (*Daud.*); *Sharpe, Cat. B. i. p. 8, pl. 1.*

*Hab.* South Africa; pretty generally distributed throughout the Cape colony, still lingering even near Capetown (*Layard*); Gauritz river (*Atmore*). Caffraria (*Brehm*). Port Elizabeth and East London (*Rickard*). Algoa Bay (*Mus. Wien*). Common in Natal (*Ayres*). Extremely common from Natal up to the Matabili country (*T. E. Buckley*). Breeding in the Transvaal Republic (*Ayres*). Very numerous during a journey from Potschefstroom to the river Limpopo (*Ayres*). In all probability the species of Griffon met with in the Zambesi delta by Dr. Kirk (*Ibis, 1864, p. 314*). Sparingly found in Damara Land, chiefly observed in the vicinity of the sea above Oosop rocks in the lower course of the Swakop river. Mr. Andersson does not seem to have sent home any skins of this Vulture, with which, however, he was doubtless thoroughly well acquainted. Mr. Chapman states that it is found nearly all over South Africa, but is more common to the south and east than in either Damara or Great Namaqua Land.

N.B. It has not yet been met with by Anchieta in Mossamedes or Benguela, and seems to be much rarer on the western side of the continent. It was probably at one time more frequent in the western parts of the Cape colony, as Sir Andrew Smith, writing in 1829, speaks of it as occurring in great abundance throughout *the whole* of South Africa (*S. Afr. Q. Journ. i. p. 11*).

There is no valid evidence of its occurrence out of the South-African subregion; and its reputed capture in North-east Africa requires confirmation, while Von Pelzeln (*Sitz. z.-b. G. Wien, 1862, p. 130*) very properly doubts Erhardt's statement of its occurrence in the Cyclades (*Naumannia, 1858, p. 16*).

## 5. GYPS RUEPELLI. (Map IV.)

G. RUEPELLI, *Brehm*; *Sharpe, Cat. B. i. p. 9.*

*Hab.* N.E. Africa. Takar and Southern Nubia; Kordofan, Senaar; Abyssinia; Djak on the White Nile, less abundant on this river; comes to the sea-coast in Samhar, and occurs on the high mountains of Sémien and in the Galla countries up to 10,000 feet (*Von Heuglin*). Angollála, Shoa, October 1842 (*Harris, Mus. Brit.*). Autrub, on the Blue Nile (*Antinori*). The great majority of the Vultures met with in the Abyssinian Highlands were probably of this species, which was by no means confined to the high tableland; abundant in the Anseba valley at from 4000 to 4500 feet; Rairo, north of the Lebka valley, at 3000 feet (*Blanford*). South Africa, rare; seldom found to the south of the Orange river (*J. Verreaux*). Port Natal (*J. Verreaux, Mus. Lisb.*); rare in this part of the colony (*Ayres*).

*S.W. Africa.* Ondonga, Ovampo Land, Nov. 1866.

I cannot help thinking that this is the identical specimen mentioned by Professor Schlegel (*Revue, Accipitr.* p. 140) as *Vultur fulvus kolbei*. When I gave up collecting large African birds in order to restrict myself to Passeres and Picariæ, most of the former passed into the hands of Mr. Frank, by whom they were offered to the Leiden Museum. I may state therefore that the bird in question was examined both by Mr. Gurney and myself, and identified as *G. rueppelli*, which, as I have observed in my 'Catalogue,' when adult, is unmistakable, but when young more nearly resembles the other Griffons.

#### 6. GYPS INDICUS. (Map IV.)

*G. INDICUS* (*Scop.*); *Sharpe, Cat. B.* i. p. 10.

*Hab.* All over India, more rare towards the south, and then chiefly near mountains; not rare on the Neilgherries, where it breeds (*Jerdon*). Kattiawar (*Lloyd*); breeds at the Taragurh Hill near Ajmere, and in the Gaimookh cliffs on Mount Aboo (*Hume*); very common near the Sambhur Lake (*Adam*); common in Oudh and Kumaon (*Irby*); Nepal (*Hodgson*); Deccan (*Sykes*); probably occurs in the Wardha valley (*Blanford*); Assensole, Chota Nagpur district (*Brooks*); breeds near Calcutta (*Blyth*); very abundant in Burmah (*Jerdon*); Arakan (*Blyth*); Zwagaben Mountains (*Beavan*); nowhere in great numbers in Upper Pegu, but is not uncommon near villages (*Oates*); Siam (*Schomburgk*); an adult and a nestling procured by Mouhot in Siam, 200 miles N.E. of Bangkok, in the Norwich Museum (*Gurney, Cat. Rapt. B. Norw. Mus.* p. 74); Malayan peninsula: "I have seen two specimens of this Vulture in a Malacca collection. No doubt a Vulture of any kind is there rare, or it would not have been deemed worthy of preservation; according to Sir Stamford Raffles, Vultures are rare on the west coast of Sumatra, but are occasionally seen on the Malayan peninsula and at Penang" (*Tr. Linn. Soc.* xiii. p. 277; *Blyth, B. Burma*, p. 64).

Mr. Hume believes that two distinct birds are generally comprised under the name of *G. indicus*, and he has named one of them *G. pallescens*. Captain Butler says that the Long-billed Brown Vulture is very common near Mount Aboo and in Northern Guzerat; and Mr. Hume states that the bird from these parts is the pale cliff-breeding *G. pallescens*, and not the so-called *G. indicus* of Scopoli, "so common in the eastern portions of our empire." He states that he has received it from Jodhpoor, Cutch, and Kattiawar, but not Scindh as yet.

## 7. PSEUDOGYPS BENGALENSIS. (Map V.)

*P. BENGALENSIS* (Gm.); *Sharpe, Cat. B. i. p. 11.*

*Hab.* The commonest Vulture in India; in immense numbers all over the country, extending into Assam and Burmah (*Jerdon*). Candahar (*Hutton*); commonest Vulture in Kattiawar (*Lloyd*); very plentiful both on the hills and in the plains near Mount Aboo and Northern Guzerat (*Butler*); common all over Rajpootana, the North-west Provinces, and the major portion of the Punjab (*Hume*); very common near the Sambhur Lake; "a great quantity of camels and bullocks which die near here attract these birds in great numbers" (*Adam*); common throughout the year in Oudh and Kumaon (*Irby*); Nepal (*Hodgson*); Chota Nagpur (*Ball*); Wardha valley near Chanda (*Blanford*); Deccan (*Sykes*); Travancore (*Elwes*); Burmah, often seen in great numbers, even in the suburbs of large towns (*Mason*). "I noticed a few about Akyab only. It abounds as much in Siam as in Bengal" (*Blyth, B. Burma, p. 65*). A specimen received from Thayetmyo; occurs as far south, at any rate, as Tavoy (*Hume*); Pabyouk, Tenasserim; occasionally seen (*Davison*); Province Wellesley (*Cantor*).

## 8. PSEUDOGYPS AFRICANUS. (Map V.)

*P. AFRICANUS* (*Salvad.*); *Sharpe, Cat. B. i. p. 12.*

*Hab.* From the Soudan northwards to Chartoom; Western Abyssinia; Southern Kordofan and the districts of the White Nile and Gazelle River (*Von Heuglin, Antinori*); Senaar (*Kotschy, Mus. Wien, cf. Pelz. Sitz. z.-b. G. Wien, 1862, p. 130*). Nubia (*Baron Von Mueller, Mus. Stuttg., cf. Calwer, Cat. p. 2*). Senegal, Dakar (*Marche, cf. Bowier, Cat. p. 5, Sharpe, Cat. B. i. p. 13*). S.W. Africa; Humbe on the Cunene river (*Anchieta, cf. Bocage, Journ. Lisb. 1874, p. 47*).

## 9. LOPHOGYPS OCCIPITALIS. (Map VI.)

*L. OCCIPITALIS* (*Burch.*); *Sharpe, Cat. B. i. p. 15.*

*Hab. N.E. Africa.* It affects only the wooded districts of the equatorial north-east, the Abyssinian coast-land, the districts of Bogos and Maria, Central Abyssinia, Senaar, Southern Kordofan, and the countries about the White Nile and Gazelle River westwards as far as Kosanga. It wanders more rarely into the southernmost parts of Nubia and Takah and the Bisharim steppes; it is not rare near Massowa; not observed in Somali Land (*Heuglin*). Senaar (*Kotschy, Mus. Wien*). Nubia (*Clot-Bey, Mus. Lugd.*). Mansura, Barka river, Anseba river, Keren, Bogos Land (*Antinori & Beccari*). *W. Africa.* Senegal (*Mus. Lugd.*). Bissao (*Beaudouin, Calheiros*). Fernand Vaz (*Marche*). *S. Africa.* Not found within the limits of the Cape colony (*Layard*); rarest of the Vultures in Natal (*Ayres*); plentiful near Kuruman (*Chapman*); breeds in

the Transvaal (*Ayres*); originally obtained in the Bechuana country by Burchell; not a very common species from Natal to the Matabili country (*T. E. Buckley*); near the Seko-kaama Hill, the Koppes, S.W. of Lake Ngami, March 2, 1862 (*Baines*): "I do not remember to have met with this fine Vulture in Damara Land, but have observed it, though only at a distance on a few occasions, in Great Namaqua Land" (*Andersson*).

#### 10. OTOGYPS AURICULARIS. (Map VII.)

*O. AURICULARIS* (*Daud.*); *Sharpe, Cat. B. i. p. 13.*

*Hab. S. Africa*; pretty generally distributed in South Africa (*Layard*); breeding near Beaufort in August (*Jackson*); Natal (*Ayres*); Transvaal (*Ayres*); Modder river, near Bloemfontein, Orange Free State (*Exton*); the commonest Vulture in Damara and Great Namaqua Lands, and also found in all the parts bordering those countries (*Andersson*); probably in the Zambesi (*Kirk*).

*N.E. Africa.* Not found in Northern Egypt, but in the middle and southern provinces tolerably plentiful; common in Nubia, Northern Kordofan and Senaar; in Takah and the whole of Abyssinia up to 12,000 feet in the latter country—in the district of the middle and upper White Nile apparently entirely absent—on the Red-Sea coast seemingly only of accidental occurrence (*Heuglin*); met with on the highlands of Abyssinia at considerable elevations, and occasionally seen in the Anseba valley at lower levels (*Blanford*); Shoa (*Harris, Mus. Brit.*); Khartoum (*Vierthaler*); Senaar (*Reitz, Mus. Wien*).

*W. Africa.* Cape-Verd peninsula, Senegal (*Marche*). Cf. *Bouvier, Cat. p. 2.*

*N. Africa.* Sahara; constant resident, though in limited numbers (*Tristram*); breeds to the S.W. of Biskra, remains all the year round in the district between the Mزاب country and the oasis of Waregha, lat. 32° N. (*Tristram*); probably to be found in the southern part of Morocco (*Irby*).

*Palestine.* Mount Lebanon (*Mus. Marseilles*).

*Europe.* Once near Arles, S. France (*Jaubert & Barthélemy-Lapommeraye*). The same gentlemen state that it has once nested in Spain. The Norwich Museum has a specimen said to have been killed in Greece (cf. *Gurney, Cat. Rapt. B. p. 58*).

*N.B.* It will be seen that I have treated all the eared Vultures of Africa as being of one species, the only specific difference being the greater amount of wattled skin on the sides of the bare neck in South-African specimens. Dr. Exton has some remarks on this subject (*Cape Monthly Mag. 1875, p. 259*), and considers that the preparation of the skin has much to do with the appearance of the birds when preserved.

## 11. OTOGYPS CALVUS. (Map VII.)

*O. CALVUS* (*Scop.*); *Sharpe, Cat. B. i. p. 14.*

*Hab.* Found commonly throughout India, extending into Burma, but by no means abundant in individuals (*Jerdon*); not uncommon in Kattiawar (*Lloyd*); found in the hills and plains near Mount Aboo and in northern Guzerat (*Butler*); Jodhpoor, Cutch, Kattiawar, Sambhur, and Rajpootana generally, but not as yet from Sindh (*Hume*); common near the Sambhur Lake; "in the month of March I saw this bird sitting on its nest, which was in the face of a rock in the hills near the town of Nawa" (*Adam, S. F. 1873, p. 367*); Etawah, breeding at Ajmere (*Hume*); between Simla and Mussoorie (*Tytler, Ibis, 1871, p. 194*); "seen occasionally between Mussoorie and Gangaotri, and far into the hills, where one would not expect to see a plains-loving Vulture. I saw one or two soaring high above Derali" (*Brooks, S. F. 1875, p. 228*); frequently noticed at Nynee Tal and Almora (*Brooks*); found in Oudh and Kumaon throughout the year, breeding in the cold season (*Irby*); Nepal (*Hodgson*); from the neighbourhood of Calcutta (*Mus. Ind.*); not uncommon in Chota Nagpur, but more than a pair rarely observed at a time (*Ball, S. F. 1874, p. 376*); Wardha valley (*Blanford, J. A. S. B. 1871, p. 270*); Deccan (*Sykes*); breeding near Gotekindee, Sattara district (*Davidson, S. F. 1874, p. 336*); Travancore (*Elwes*); Khasia and Garo hills, six or eight specimens observed at Chatak (*Godwin-Austen, J. A. S. B. 1870, p. 265*); not a common species in Burma (*Blyth, B. Burma, p. 64*); Upper Pegu (*Oates, Feilden*); Siam (*Schomburgk*). Turkestan, an occasional summer visitant to district III. ("the north-western district comprising Karatau, the western Thianshan mountains, the upper portions of the rivers Aris, Kedess, Chirchick, and their tributaries, the lower Syr-Daria, from the source of the Aris to Lake Aral and the delta of the Syr-Daria"): *Severtzoff*; cf. *Dresser, Ibis, 1875, p. 97*. The "vertical range" is given in the same paper as follows: "an occasional straggler during summer in district II. (the cultivated districts, grassy steppes, and gardens to 3000 or 4000 feet altitude)."

## 12. NEOPHRON PERCNOPTERUS. (Map VIII.)

*N. PERCNOPTERUS* (*L.*); *Sharpe, Cat. B. i. p. 17.*

## PALÆARCTIC REGION.

*Norway.* Buffon records a specimen from this country.

*Great Britain.* Accidental visitor; once in October 1825 near Kilve in Somersetshire; a second in September 1828. For particulars, cf. Newton's edition of Yarrell, vol. i. p. 7.

*France.* Of doubtful occurrence in the department of the Seine Inférieure (*Lemetteil, Cat. i. p. 82*). Tolerably common in many places in the Pyrenees, on the lofty mountains of Provence, in the departments of the Var and the Basses Alpes; it lives also on those of L'Isère, La Drome,

L'Hérault, Gard, Bouches-du-Rhône, L'Ariège. Lastly, Abbé Vincelot records it as an accidental bird of passage in the department of Maine-et-Loire; it arrives in April to breed in the above places, and leaves at the end of the summer (*Degland et Gerbe, Orn. Eur. i. p. 13*). Not common in Savoy or Switzerland, and only comes during the summer, arriving with the first days of March (*Bailly*).

*Spain.* Very common in Andalucia and probably all other parts of Spain in summer (*Lilford*); abundantly distributed near Gibraltar (*Irby, B. Gibr. p. 31*); common in Southern Spain except in winter, when but few remain (*Saunders*).

*Portugal.* Common in the Sierra de Louza (*Bocage*); apparently rare in Algarve (*Rey, J. f. O. 1872, p. 141*).

*Balearic Isles.* Mallorca, May 2 (*Von Homeyer*).

*Italy.* Salvadori states that it is resident in the district of Nice in the Siena Maremma, especially about Cape Argentaro, where Save found it breeding, and in the Roman Campagna. It seems to run down the west coast; but to the east of the Apennines it does not occur, with the exception of a single example at Taranto. It is found in the mountains of the Neapolitan districts; and recent investigations have shown, according to Prof. Doderlein, that it is by no means rare, although somewhat local, in the island of Sicily, in the mountainous districts of which it nests. Said to be pretty common on the Monte Argentaro and in the Siennese Maremma, but does not occur near Pisa (*Giglioli*).

*Malta.* Merely an accidental visitor (*Wright*).

*Austrian Empire.* Appears to be not so rare in Southern Hungary. Herr O. von Hermann obtained three specimens on the 12th of July near Braziás (*Von Tschusi, J. f. O. 1874, p. 341*).

*Turkey.* "In the Pravidy valley, in the neighbourhood of Shumla; and wherever the hills show a broken face of rock, there I found this Vulture pretty abundant; but in the open country and wooded districts, though occasionally to be met with, it is comparatively scarce; arrives in March, leaves in October" (*Farman*); plentiful in Bulgaria (*Elwes and Buckley*); abundant in and about Constantinople in spring and summer (*G. C. Taylor, Ibis, 1872, p. 228*); common in spring in Turkey, arriving by thousands (*Alléon*).

*Greece.* Very common in summer on the mainland (Albania &c.); breeds in Corfu and in Epirus; first observed at Prevesa, in the Gulf of Arta, on the 15th of March, 1857 (*Lilford*); Dobrudscha (*Hudleston*).

*Crimea* (*Pallas*).

*Asia Minor.* Not rare near Smyrna, arriving in March (*Krüper, J. f. O. 1869, p. 22*).

*Palestine.* Universally distributed throughout Palestine in summer (*Tristram*); strictly migratory; plentiful in Gilead and Moab (*Tristram*).

*Egypt.* Extremely abundant throughout Egypt and Nubia (*Shelley*); breeds among lofty crags along the banks of the Nile in Nubia (*Leith Adams*).

*Sinaitic Peninsula.* Generally distributed, but not very common (*Wyatt*).

*Algeria.* Very rare in winter, but found in summer in the Sahara (*Tristram*). Extensively distributed in Algeria and Tunis; breeds (*Salvin*).

*Morocco.* Common in Tangier; breeds near Tetuan (*Drake*); appears near Tangier in flocks during migration, some remaining to nest in the vicinity, awaiting the return of the autumn migration to winter probably in the interior of Africa. They pass over to Europe from February to April, returning in August and September (*Favier*, cf. *Irby, B. Gibr.* p. 31).

*Canary Islands &c.* Common in all the Canarian Group; breeds in Teneriffe and probably in the other islands (*Godman*). Madeira (*Vernon Harcourt*).

*Persia &c.* Rare in Persia to the south of Elburz, frequent in the Caucasus and at Ghilan (*Filippi*); the first specimens seen at Bakou in the Caucasus in spring, and afterwards on the mountains of Talyche, but never were more than two together (*Ménétriés, Cat.* p. 27).

*Turkestan.* Breeds in the whole country, and is found during summer in the district "from 600 to 1000 feet above the sea-level, comprising the salt-plains, the cultivated districts, grassy steppes, and gardens to 3000 or 4000 feet altitude, and is said to breed in the larch-woods, apple- and ash-groves of the Karatau and the lower Thian-Shan mountains" (*Severtzoff*, cf. *Dresser, Ibis*, 1875, p. 99).

#### ETHIOPIAN REGION.

*N.E. Africa.* Commonest bird of prey in Egypt, Arabia, and the Somali coasts; in the interior of Abyssinia to about 11,000 feet; on the Upper White Nile and Gazelle River only accidental (*Heuglin*); found on the coast of Egypt between Cosseir and Suakin, coast of Abyssinia, Danakil country between the peninsula of Buri and the Gulf of Tadjura, Somali coast; South Arabia (*Heuglin*); Zoulla and Senafé (*Blanford*); Angollala, Shoa (*Harris*).

*E. Africa.* Zanzibar (*Von der Decken*).

*S. Africa.* Zambesi district (*Kirk*); very rare in Natal (*Ayres*); said to be common in the interior of Cape colony and about Namaqua Land—at the western end of the colony decidedly scarce—Hopefield, Malmesbury district (*Layard*); Kingwilliamstown (*Trevelyan*); breeds near Swellendam (*Atmore*); not uncommon in Damara and Great Namaqua Lands and the parts adjacent, more especially in the neighbourhood of the coast (*Anderson*); Mossamedes (*Sala, Mus. Lugd.*).

*West Africa.* Absent.

*Cape-Verd Islands* (*Bolle, Dohrn*). St. Iago (*Mus. Lisb.*). Mayo (*Bouvier*).

#### 13. NEOPHRON GINGINIANUS. (Map VIII.)

*N. GINGINIANUS* (*Lath.*); *Sharpe, Cat. B. i.* p. 18.

This species differs from the ordinary Scavenger Vulture of

Europe in having a yellow instead of a blackish bill. Mr. Brooks writes (*Ibis*, 1870, p. 290):—"The distinction of the dark bill does exist, but only in certain localities in India. When at Delhi the other day I observed that some of these birds had dark bills, others not so dark, and some had light ones. The difference may be due to some peculiarity of climate; that it is specific I do not believe. I shot one bird at Delhi which has a dark bill and claws, the cere of a deeper colour than the rest of the bare skin, and a few small white feathers on the throat; but had I chosen, I could also have procured close to this bird one with a light bill, and a complete representative of our more southern bird. In size, proportion of wings to tail, and other points these birds vary a little; and in colour of the bill they vary much. I could not procure a black-billed one here at Etawah, nor could I at Almorah, which is much further north than Delhi; but at Delhi the black bills are the rule. The one I shot has a dark bill; but I saw many others with the point of the bill nearly, or quite, black.

"Between this and Delhi there must be a part of the country where light and dark bills will be equally common; and north and west of Delhi there will be a place where the weakly birds with pale bills will never be found. I have no doubt that dark and light-billed birds will sometimes be found breeding together, a dark-billed male and a light-billed female, or *vice versâ*. Mr. Blyth, not having seen dark-billed birds in India, was quite justified in thinking then that our pale-billed bird was of another species. With the aid of a powerful glass I examined every *Neophron* I saw at Delhi; and few indeed had light bills."

The above interesting note shows that in all probability the two *Neophrons* grade into each other; and it is certain that the range of the two is continuous; for Mr. Hume writes:—"In Sindh, at Gwader, and at Muscat it swarms wherever human habitations are found, and in the most uninhabited parts, even in the Kelat Hills a pair may occasionally be found." Again, he writes that it occurs throughout Sindh, Kutch, Kattiawar, Jodhpoor, and Rajpootana. Captain Butler says that it is a very common species both on the hills and in the plains near Mount Aboo, and in northern Guzerat. According to Mr. Blyth, it is a summer visitor to Afghanistan; and Mr. Ball has lately noticed it from the Suliman Hills, west of Dera Ghazi Khan; but he collected no specimens. He writes, "It was more abundant



in the Sulimans than in any other part of India which I have visited. This was probably due to the fact of the absence or extreme rarity of any of the true Vultures" (Str. F. 1875, p. 205).

Not uncommon in Kattiawar, but somewhat locally distributed (*Lloyd*).

Occurs in the N.W. Himalayas, and is common in the large stations up to at least 9000 feet elevation (*Jerdon, Ibis*, 1871, p. 237).

Between Simla and Mussoorie; not common. I did not see more than a dozen together at all heights (*Tytler, Ibis*, 1871, p. 194).

Breeds at Muree; a nest found in a cliff in May, with two fresh eggs, at an elevation of about 4000 feet (*Cock & Marshall, S. F.* 1873, p. 349). Noticed this species as high as Danguli between Mussoorie and Gangaotri (*Brooks, S. F.* 1875, p. 228). Nepaul (*Hodgson*); in great numbers in Oudh and Kumaon; frequently seen in Kumaon, and is common at Nynee Tal and Almora; seldom, if ever, seen near Calcutta (*Irby*).

Abundant on the plains of India; rare and accidental below the tideway of the rivers in Lower Bengal (*Blyth*); common in villages in Chota Nagpur, especially about those of the untidy aborigines (*Ball, S. F.* 1874, p. 377). Whardha valley; breeding in a cliff at the side of the Whardha river on April 14; again on a tree on May 2 (*Blanford*); Deccan (*Sykes*); Travancore (*Elwes*).

*Ceylon.* One specimen at Newara Ellia (*Vincent Legge, S. F.* 1875, p. 195).

#### 14. NEOPHRON PILEATUS. (Map IX.)

*N. PILEATUS* (*Burch.*); *Sharpe, Cat. B.* i. p. 18.

*South Africa.* Not found in the colony (*Layard*); but few seen in Natal (*Ayres*); not common in Damara Land, but becomes more numerous towards the Orange river (*Andersson*); universal in the Zambesi region (*Kirk*).

*W. Africa.* River Gambia (*Bravo*); Raffisque, Senegal (*Marche*); Bissao (*Pimenta, Mus. Lisb.*); Sierra Leone (*Ussher, Marche*); very common on the Gold Coast (*Ussher*); Aguapim (*Riiss*); mountains of Aguapim at Aburi, also on the Wuri, Cameroons (*Reichenow*). Reichenow is surprised to find that Ussher mentions this Vulture as being common at Cape Coast, since he did not meet with it at Accra and other places on the Gold Coast (*J. f. O.* 1874, p. 384); Shelley and Buckley, however, record it as abundant at Cape-Coast Castle all the year round, being never molested; but they also note its absence near Accra (*Ibis*, 1872, p. 292); River Volta (*Ussher*); Lagos (*Ussher*); river Niger (*Baikie*); S. Thomas (*Lopez de Lima*).

*N.-E. Africa.* In N.-E. Africa northwards to 14° or 17° N. lat.; in southern Arabia, Samhar, and the mountains of the Beni Amer, commoner than *N. percnopterus* on the White Nile (*Heuglin*); breeds on the Blue Nile in December (*A. Brehm*); Senaar (*Kotschy, Vierthaler*); Shoa (*Harris*); Keren, Bogos (*Antinori & Beccari*) breeds near Massowa

(*Duke Ernst*); Zoulla (*Blanford*); common from the coast to the highlands of Abyssinia (*Jesse*); islands of the Dahalak group, very common in marshy country near Chor-Mosgan, Somali, not seen about Tadjura and Berbera (*Heuglin*).

*E. Africa* (*Von der Decken*). No exact locality recorded.

### 15. SARCORHAMPHUS GRYPHUS. (Map. I.)

*S. GRYPHUS* (*L.*); *Sharpe, Cat. B. i. p. 20.*

*Hab.* "The Condor is known to have a wide range, being found on the west coast of South America, from the Strait of Magellan, throughout the range of the Cordillera, as far, according to M. d'Orbigny, as 8° N. lat. On the Patagonian shore the steep cliff near the mouth of the Rio Negro in lat. 41° was the most northern point where I ever saw these birds or heard of their existence; and they have wandered about 400 miles from the great central line of their habitation in the Andes. Further south, among the bold precipices which form the head of Port Desire, they are not uncommon; yet only a few stragglers ever reach the coast" (*Darwin*). Chili, from the Strait of Magellan to the Atacama desert (*Philippi*); found in all the provinces of Chili, and very abundant in the elevated valleys of the Andes (*Brydges*). "The Condor I first saw at Cape Possession, considerable numbers of the bird nesting on high ledges of the cliffs in this vicinity" (*Cunningham*); "in all the western parts of the La-Plata countries on the Cordilleras, but also on the high ranges in the interior—namely, on the Sierra de Cordova and Aconquija, where I myself saw the bird" (*Burmeister*); Peru (*Mus. Philad.*); Ecuador (*Orton*); Columbia, "We saw the Condor as we were crossing the Paramo of Pamplona above Vetas, altitude 11,500 feet" (*Wyatt*).

N.B.—The Condor is here treated as a single species; but there are probably three species or races—the first from Magellan Strait and Chili, the second from Peru, and the third from Ecuador and Columbia. Since I named the last *S. equatorialis*, I have seen no additional evidence as to its distinctness as a species, and the question remains *in statu quo*. I recently examined a bird in Mr. Boucard's house from Columbia; but the specimen was evidently young, and could not be compared with the southern form, of which we have only adults in the Museum.

### 16. CATHARTES PAPA. (Map II.)

*C. PAPA* (*L.*); *Sharpe, Cat. B. i. p. 22.*

*Hab.* Southern Mexico (*Sallé*). Vera Cruz, S. Mexico (*Boucard*). Three specimens captured in the mountains near Acaponetti, about eighty miles south-east of Mayatlan (*Grayson, cf. Lawrence, Mem. Bost. Soc. ii. p. 303*). Honduras, procured at Omoa and in the mountains of San Pedro, not common about Omoa, but more frequently seen in the less-inhabited districts in

the centre of Vera Paz, frequenting the higher ranges (*Leyland*). Guatemala: Coban, Vera Paz; found only in the coast districts, does not extend its range into the central districts (*Salvin*). Costa Rica; only in the warmer and more retired parts of the country, especially in the neighbourhood of the coast; seen in San Juan del Norte, and some specimens on the western side (Pacaca) (*Von Frantzius*). Panama (*M<sup>c</sup> Clelland*); New Granada (*Salmon*); Bogotá (*Sclater*); Santa Martha (*Verreaux*); Trinidad, met with on a journey from Port of Spain to the east coast (*E. C. Taylor*); British Guiana (*Schomburgk*); by no means common in Demerara (*Bonyan*). Brazil; Rio Itapemirini, Rio Perahype, Rio Ilheos (*Prince Maximilian*); Lagoa Santa (*Burmeister*); Rio de Janeiro (*Mus. Lisb.*); Minas Geraes (*Lund*); Ytararé (February), Murungaba (March), Rio Araguay (October, November), Jacobina (July), Caiçara (October), Engenho de Capt. Gama (September), Borna, Rio Branco (April, May), Serra Carauman (July) (*Natterer*). All the forests of the Lower Amazons (*Wallace*); Xeberos and Santa Cruz, Huallaga river, E. Peru (*E. Bartlett*). The whole of Brazil, Western Peru, and Bolivia; towards the south it extends its migrations to the 28th degree of lat. to Paraguay and Corrientes, where, however, it becomes rare, never found to the west of the Andes (*D'Orbigny*).

#### 17. CATHARISTES ATRATUS. (Map III.)

*C. ATRATUS* (*Bartr.*); *Sharpe, Cat. B. i. p. 24.*

*N. America.* "Quite common along the Atlantic and Gulf coasts from North Carolina to Mexico. It does not occur on the Pacific coasts of the United States, though given by Douglas as being abundant on the Columbia river; indeed it has not, that I am aware of, been detected west of the Rocky Mountains. It is, however, as Dr. Gambel states, very common about the Gulf of California; and at Mazatlan, particularly, he saw it round the town in large companies. On the Atlantic coast it is not often met with further north than Wilmington, N.C. I could not detect it near Norfolk, Va., nor could I understand that it was known ever to occur there. Accidental specimens have been taken, two on the coast of Massachusetts and one in the Bay of Fundy; but such occurrences are very rare. Along the coast of all the Southern States, from North Carolina to Texas it is much more abundant than *R. aura*, even where, in the interior of the same state, it is far less frequent. Along the banks of the Mississippi and its tributaries, as far as Ohio to the east and Illinois to the north, it is found more or less abundantly at certain seasons. It is met with in several of the West-India Islands, though rare in Jamaica" (*Brewer*, in the 3rd vol. of *N.-American Birds*, p. 352); Florida (*G. C. Taylor*); on the Rio Grande, Texas, about equally common with *C. aura*, but towards San Antonio, much less so (*Dresser*).

*C. America.* Orizaba, Mexico (*Botteri*); Mazatlan, "may be met with in all Mexico, but is more common in the *tierras calientes* (*Grayson*,

cf. *Lawrence, Mem. Bost. Soc.* ii. p. 303); everywhere in Guatemala (*Salvin*); very abundant in Honduras in the villages (*G. C. Taylor*); in great numbers about Omoa (*Leyland*); breeds in Costa Rica, where it is a very common species in the neighbourhood of almost every inhabited place (*Von Frantzius*); Panama (*M<sup>c</sup>Clelland*).

*West-India Islands.* Cuba (*Gundlach*); Jamaica, recently arrived (March); not seen there by Mr. Gosse; not in Porto Rico (*E. C. Taylor*), nor in any of the islands between Trinidad and S. Thomas (*E. C. Taylor*).

*S. America.* Very common in Trinidad and Venezuela (*E. C. Taylor*); widely distributed in British Guiana (*Bonyan*); Surinam (*Mus. Lugd.*); New Granada (*Mus. Lugd.*); Columbia, Ocaña (*Wyatt*); Ecuador, in hundreds at Babahoyo, Perruche, common in the pueblo, sitting on the roofs, and above Puellaró (*Fraser*); Florida, common throughout the country all the year round, more especially in the dry season, when the Peruvians are collecting and drying *Vacca marina* and fish (*E. Bartlett*). "We have met with this Vulture in the whole of Brazil, in the Republic of Uruguay, in Patagonia, Paraguay, Chili, Peru, Bolivia. It is common at Maldonado, in the Banda oriental of La Plata, but is never found near Buenos Ayres. It only commences to become common again in Patagonia, which caused Azara to say that it was not found to the south of the La Plata. We can only attribute its disappearance to the absence of trees or bushes in the Pampas; for it reappears in numbers on approaching the Cordillera of the Andes. It disappears at once, and is seldom seen in the elevated parts of this Cordillera. We have met with it more often and in large troupes in Patagonia, on the banks of the Rio Negro, near the towns in Chili, and particularly on the maritime coasts of Peru, as well as in the interior in the plains of Bolivia; but it is rare in the mountains" (*D'Orbigny*). Rio Janeiro (December), Ypanema (April, May) (*Natterer*); Para (*Wallace, Layard*); Lagoa Santa (*Lund*); Catangallo (August) (*Euler*); Santa Catharina (*Berlepsch*); Rio Negro, Patagonia (*Hudson*); never found to the south of this river, never seen in Patagonia or Tierra del Fuego (*Darwin*); common in the whole of Brazil, spread through the La-Plata States, but more plentiful in the east and north than in the west and south, nowhere so common as in Brazil (*Burmeister*); comes into the province of Santiago and the northern parts of Chili, but not in such innumerable quantities as in Peru, where thousands of these birds are found in the streets of Lima (*Bibra*); found on the eastern sides of the Andes near Mendoza, and occasionally seen in the province of Colchagua (*Brydges*); common in Mendoza; not seen in Chiloe or on the west coast of the continent to the south of that island (*Darwin*). Prof. Cunningham, however, found this Vulture very common in Chiloe; so that perhaps it has been introduced there since Mr. Darwin's voyage.

The British Museum has a skin said to be from Buenos Ayres; but it is probably from some adjacent locality.

## 18. RHINOGRYPHUS AURA. (Map VI.)

R. AURA (L.); *Ridgw. N. A. Birds*, iii. p. 344.

ÆNOPS AURA (L.); *Sharpe, Cat. B.* i. p. 25.

*Hab.* Dr. Coues gives a very concise account of the range of this bird, which I extract from his 'Birds of the North-west:—“Although more particularly an inhabitant of the warmer parts of America, and most numerous in the Southern States, along with the Black Vulture (*Catharistes atratus*), the Turkey Buzzard is nevertheless found all over the United States and a little way into British America. On the Atlantic coast its ordinary limit is Long Island; Audubon's data were incomplete in rendering his statement that it is never seen beyond New Jersey. It has been repeatedly observed in southern New England, and at least once in Maine. Its Nova-Scotia record, as remarked by Brewer, is vague, and probably unfounded; and even its New-England occurrences are rare, if not altogether casual. It is included in Mr. McIlwraith's list of the birds of Hamilton, Canada West, with the remark that it is a regular summer visitor to the extensive flats near Chatham and along the shores of Lake Saint Clair. In the interior it regularly goes further north than on the coast. Mr. Trippe found it abundant in Minnesota, where it breeds; and Sir John Richardson's well-known record fixes its northern limit at about latitude 53°, in the region of Saskatchewan, where it arrives in June. The highest point where I ever saw it myself, up to the date of present writing, was Fort Randall, lat. 43° 11', on the Missouri: at the close of the most terrific storm of the season of 1872-3, memorable for its severity, five or six birds came sailing over the fort. This was on the 15th of April; none had been observed previously after October; and I do not think it usually passes the inclement season at this point.

“This brings us to consider the resident range of the species as compared with its summer dispersion. It has not been observed to winter on the Atlantic beyond New Jersey, and even in that State is more numerous in summer than in winter. But at Washington, D. C., my home for a number of years, where the bird is very common, I noticed no material diminution of its numbers during the colder months. The same is the case in both the Carolinas, where I constantly observed it during a residence of three or four years. In the interior it appears to winter higher up; thus Mr. Trippe saw it late in October, and again in December, in Minnesota. But the last may have been an unusual occurrence; probably the parallel of 40°, or rather the isothermal corresponding to this latitude on the Atlantic coast, may approximately indicate the line of its northernmost winter residence.”

Captain Blakistone's observations on the Turkey Vulture in British North America are as follows:—“A specimen was shot at Red-River Settlement on the 27th of April; observed at Fort Carlton near the forks of the Saskatchewan river in lat. 53° on May 7th, and again on the 7th of

September. I saw one feeding on a dead horse at the western base of the Rocky Mountains, a few miles south of where I determined the international boundary, 49th parallel. Again I saw many Vultures in the northern part of the State of Minnesota in the early part of the May following. Several specimens are in the Smithsonian Institution just from near the 49th parallel."

Common on the Rio Grande at Los Pinos, about 20 miles below Albuquerque (*Coues*); abundant at Fort Whipple, Arizona, but migrating in the latter part of October (*Coues*).

Dr. Brewer (*B. N. A.* iii. p. 345) completes the range of the bird in North America as follows:—"West of the Alleghanies it has a much less restricted distribution, from Central America almost to the Arctic regions, It is found more or less frequently in all the middle, the southern, western, and north-western States without an exception. It is met with in large numbers throughout the entire Pacific coast of North America, from Lower California to Washington territory.

*Vancouver's Island* (*Brown*).

*Florida* (*G. C. Taylor*). Matamoras, Texas (*Dresser*).

*Bahama Islands* (*Baird*).

*Bermuda*. Once in December (*Baird*).

#### CENTRAL AMERICA.

*Mexico*. Orizaba (*Botteri*). Very numerous in Western Mexico, and I found it as far south as Tehuantepec and in the Tres Marias (*Grayson*, cf. *Lawrence, Mem. Bost. Soc.* ii. p. 303).

*Honduras*. Common, usually seen in the outskirts of towns and in the villages (*G. C. Taylor*).

*Guatemala*. Not nearly so abundant as *Catharistes atratus*, frequenting the uncultivated and forest districts; a few may always be seen about the Lake of Dueñas (*Salvin*).

*Costa Rica*. Much rarer than *C. atratus*, and only found far from human habitations (*Von Frantzius, J. f. O.* 1869, p. 370).

*Panama* (*M<sup>c</sup>Clelland*).

#### WEST-INDIA ISLANDS.

*Jamaica*. The scavenger in towns and villages (*E. C. Taylor*).

*Cuba*. Resident (*Gundlach*).

N.B.—Dr. Gundlach discredits the occurrence of the species in Porto Rico (*Maugé*), and also in S. Domingo.

#### SOUTH AMERICA.

*Columbia* Ocaña (*Wyatt*).

*Ecuador*. I think it probable that the Turkey Vulture of these countries will prove to be the true *R. aura*; but I have not seen a specimen. Fraser obtained them at Puellaró, Pallatanga, and Babahoyo. It is to be noted

that he gives the colour of the legs as "yellow;" Audubon describes them as "flesh-coloured tinged with yellow."

*Venezuela.* Mr. E. C. Taylor does not notice any difference between the Turkey Vulture that he found to be "numerous on the Orinoco," and the one he observed in Jamaica.

*Trinidad (E. C. Taylor).* Whichever species the Venezuelan bird proves to be, the species will doubtless be the same from this island.

*Chili.* The Turkey Vulture, identical with North-American specimens, is found in Chili, and probably migrates along the chain of the Andes. Unfortunately we do not know whether it is resident or only a visitant to this country. Dr. Philippi speaks of it as being as common as *R. atratus*, but always found near the coast (*Cat. Mus. Sant.* p. 2); it is found in abundance along the coast of Chili, also in the interior (*Brydges*); Hasleyn Cove (May 1868), Halt Bay, and Messer Channel (*Cunningham*).

*La-Plata States.* In the western and northern part of the La-Plata country—Mendoza, Catamarca, Tucuman (*Burmeister*).

### 19. RHINOGRYPHUS PERNIGER. (Map VI.)

GENOPS PERNIGER, *Sharpe, Cat. B.* i. p. 26.

In my 'Catalogue' I separated the Turkey Vulture of South America as a distinct species from that of North America. *R. perniger* I believe to be a small form *resident* in South America; but the range is at present entirely undecided. The British Museum has a specimen from the north side of the river Amazon, collected by Mr. Wallace; and I believe that another skin procured by Mr. H. Whitely at Arequipa, in Peru, is the same bird. It is doubtless the bird of which Burmeister speaks, under the name of *Catharistes aura*, as breeding in Brazil, where it is not found in the wood-region, but more in the Campos districts of inner Brazil; it is not nearly so common as *C. atratus*, and was not met with by him on his journey. It does not live in troops like the last named, but singly or in pairs, like the King Vulture. Azara found it in Paraguay. Natterer's localities are as follows:—

*Forte do S. Joao*, on the sea-shore (February); *Mattodentro* (December); *Ypanema* (April); *Sapitiba* (February); *Fachina Velha* (August); *Ytararé* (April); *Forte do Rio Branco* (February, April).

From what I have said, it will be seen that it is by no means easy to define the *species* or the *ranges* of the Turkey Buzzards; and a great deal more research and a larger number of specimens are required to solve the problem.

## 20. RHINOGRYPHUS FALKLANDICUS. (Map VI.)

*CENOPS FALKLANDICA*, *Sharpe, Cat. B. i. p. 27, pl. ii. fig. 1.*

*Hab.* Falkland Islands, where it replaces the true *R. aura*, from which it is distinguished by the secondaries being grey externally.

## 21. RHINOGRYPHUS URUBITINGA. (Map VII.)

*CENOPS URUBITINGA* (*Pelz.*); *Sharpe, Cat. Afr. B. i. p. 28, pl. 2. fig. 2.*

*Hab.* Brazil (*Mus. Norw.*); Irisanga (S. Paulo), December; Sapitiba, February; Forte do Rio Branco, February, March, and April (*J. Natterer*). Chyavetas, E. Peru, "keeps to the forest in pairs, never approaching the towns and villages" (*E. Bartlett*). Surinam (*Mus. Brit.*). British Guiana, and less numerous than *Catharistes atratus*; found principally about the creeks of Mahaica and Mahaicony" (*Bonyan*).

N.B. This may also be the Yellow-headed Vulture noticed by Mr. Layard near Para (Ibis, 1873, p. 395).

## 22. RHINOGRYPHUS CALIFORNIANUS. (Map VII.)

*CENOPS CALIFORNIANA* (*Shaw*); *Sharpe, Cat. B. i. p. 28.*

*Hab.* Pacific-coast region of North America, from the mouth of the Colorado to the Columbia, Southern Utah (*Henshaw*). Fort Yuma, Arizona (*Coues*; cf. *Ridgway, N.-A. Birds*, iii. p. 339; *Coues, B. N.W.* p. 384).

As in the case of the other North-American Vultures, I extract the range as given by Dr. Brewer in his great work on North-American Birds:—"This large Vulture, so far as is known, is restricted to the area on the Pacific coast from the Columbia river to the Colorado, and extending as far to the east as the Sierra Nevada. None are known to have been taken in Mexico; and it very rarely goes north of the Columbia. It is said to be most common in the hot interior valleys of California, where are large herds of cattle, upon which it to a large extent depends for its food. Dr. Cooper saw none on the Colorado, and met with none east of the San-Bernardino Mountains. Even at Fort Mohave the cattle killed during the five months he resided there did not attract one of these Vultures.

"Dr. Cooper did not see these birds in any number along the sea-coast, and has noticed none on the islands or in the highest Sierra Nevada. Yet they are said, when other food is scarce, to feed on dead seals and whales; but this fact he has never witnessed.

"Dr. Newbury states \* \* \* after his party left the Sacramento Valley, he saw very few in the Klamath basin, and met with none within the limits of Oregon. It is occasionally found there, but much more rarely than in California."



## EXPLANATION OF THE MAPS (PLATES I.-IX.).

## MAP I.

The range of *Vultur monachus* in the Old World is coloured *yellow*, the probable distribution of the species being coloured lighter.

In the New World the range of the Condors (*Sarcorhamphus gryphus* and allied species) is coloured *blue*.

## MAP II.

The Griffon Vulture's range is here coloured *yellow*, the probable extent of it being represented lighter. No distinction is made in the habitats of *G. fulvus*, *G. fulvescens*, &c., as their specific value is still *sub judice*; and therefore the map shows the distribution of the true Griffons.

The *blue* colour illustrates the range of the King Vulture (*Cathartes papa*).

## MAP III.

The South-African Griffon (*Gyps Kolbi*) inhabits the part of Africa coloured *yellow*; and its ally, the Himalayan Griffon (*Gyps himalayensis*), is found in the Himalayas and in Turkestan, in the country coloured *pink*.

In the New World the range of the Black Turkey-Vulture (*Catharistes atratus*) is coloured *blue*.

## MAP IV.

The range of Rüppell's Griffon (*Gyps Rueppelli*) is coloured *yellow*, and that of the Long-billed Griffon (*Gyps indicus*) *pink*, both being Old-world species.

## MAP V.

This map illustrates the range of the genus *Pseudogyys*,—the Bengal White-backed Griffon (*P. bengalensis*) being found in the country coloured *pink*, whilst the range of its African representative, the White-backed Griffon (*P. africanus*), is shown by the *yellow* colouring.

## MAP VI.

The range of the genus *Lophogyps* is here shown by its single species, *L. occipitalis*, found in Africa, as illustrated by the *yellow* colour.

The ordinary Turkey-Vulture of the New World (*Rhinogryphus aura*) is found in the countries coloured *green*; and the habitat of its South-American representative (*R. perniger*) will most likely be found to be in the part of the continent coloured *blue*, the Falkland-Islands Turkey-Vulture (*R. falklandicus*) being confined, as its name implies, to the Falklands (*pink*).

## MAP VII.

This shows the range of the genus *Otogyps*—that of the Indian Eared Vulture (*O. calvus*) being coloured *pink*, while its African ally is found in the districts coloured *yellow*, no distinction being made between the Nubian and South-African races.

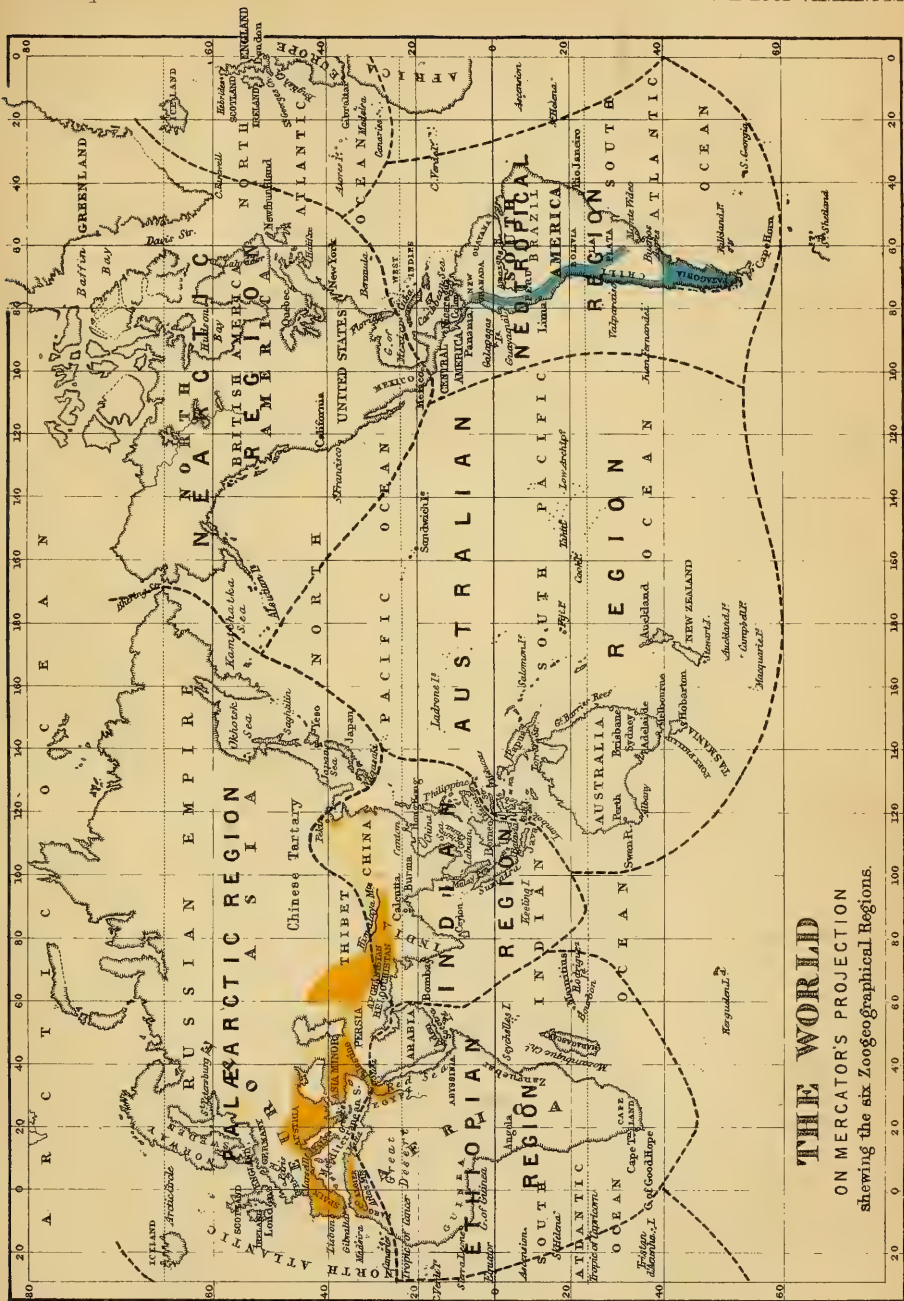
In the New World is illustrated the range of the Californian Vulture (*green*); and that of the Yellow-headed Turkey-Vulture (*R. urubitinga*) is coloured *blue*.

## MAP VIII.

On this map is shown the range of the White Scavenger Vultures, *Neophron percnopterus* and *N. ginginianus*. That of the former is coloured *yellow*, and that of the Indian species *pink*; but it is difficult to say where the ranges of the two species coalesce.

## MAP IX.

In this map is illustrated the range of the Hooded Scavenger Vulture (*Neophron pileatus*), no distinction being drawn between the typical form and the smaller and more northern one, *N. monachus*, which I do not now believe to be of specific value (*yellow*).

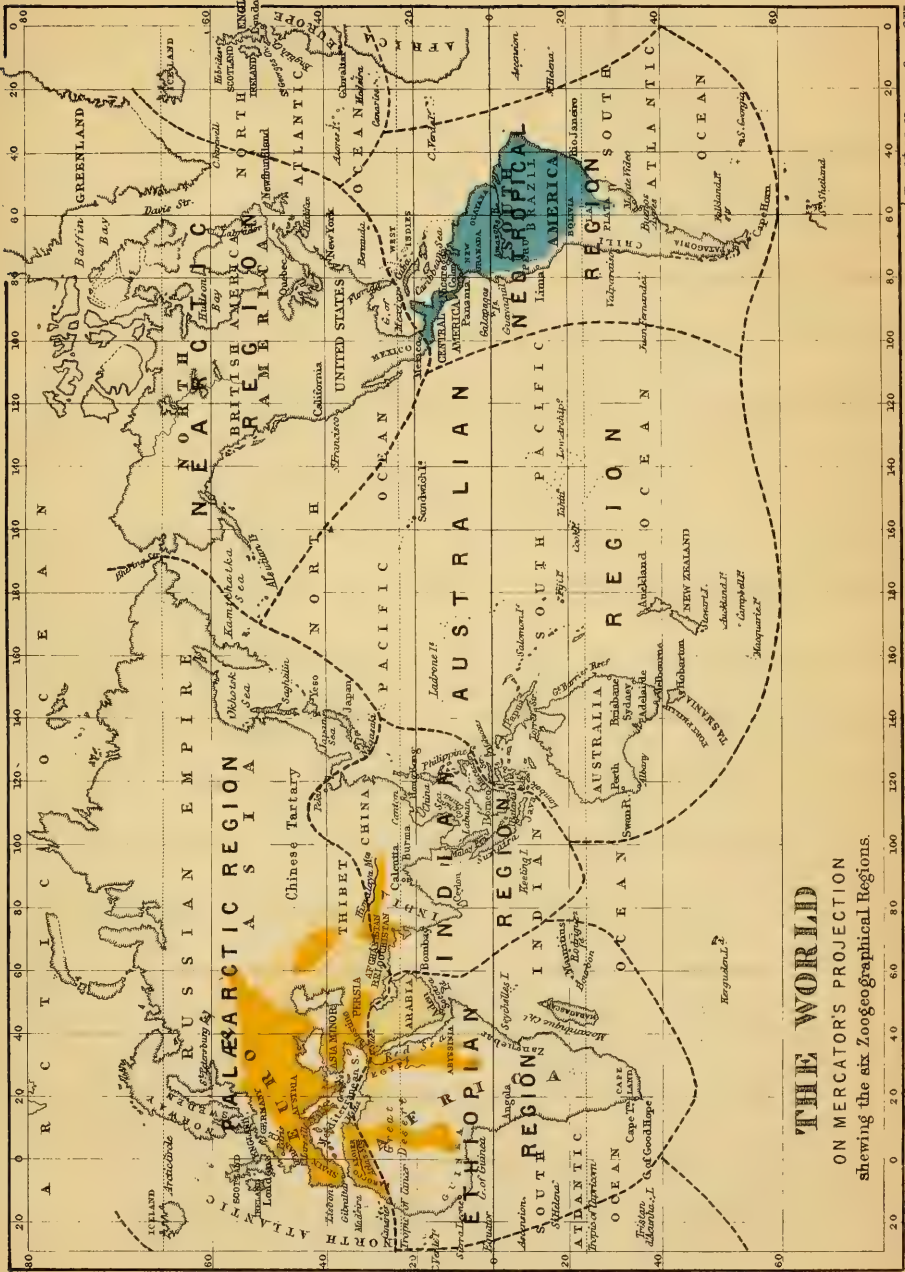


# THE WORLD

ON MERCATOR'S PROJECTION  
showing the six Zoogeographical Regions.

Stanford's Geog. Estab. 6-55, Charing Cross, S.W.

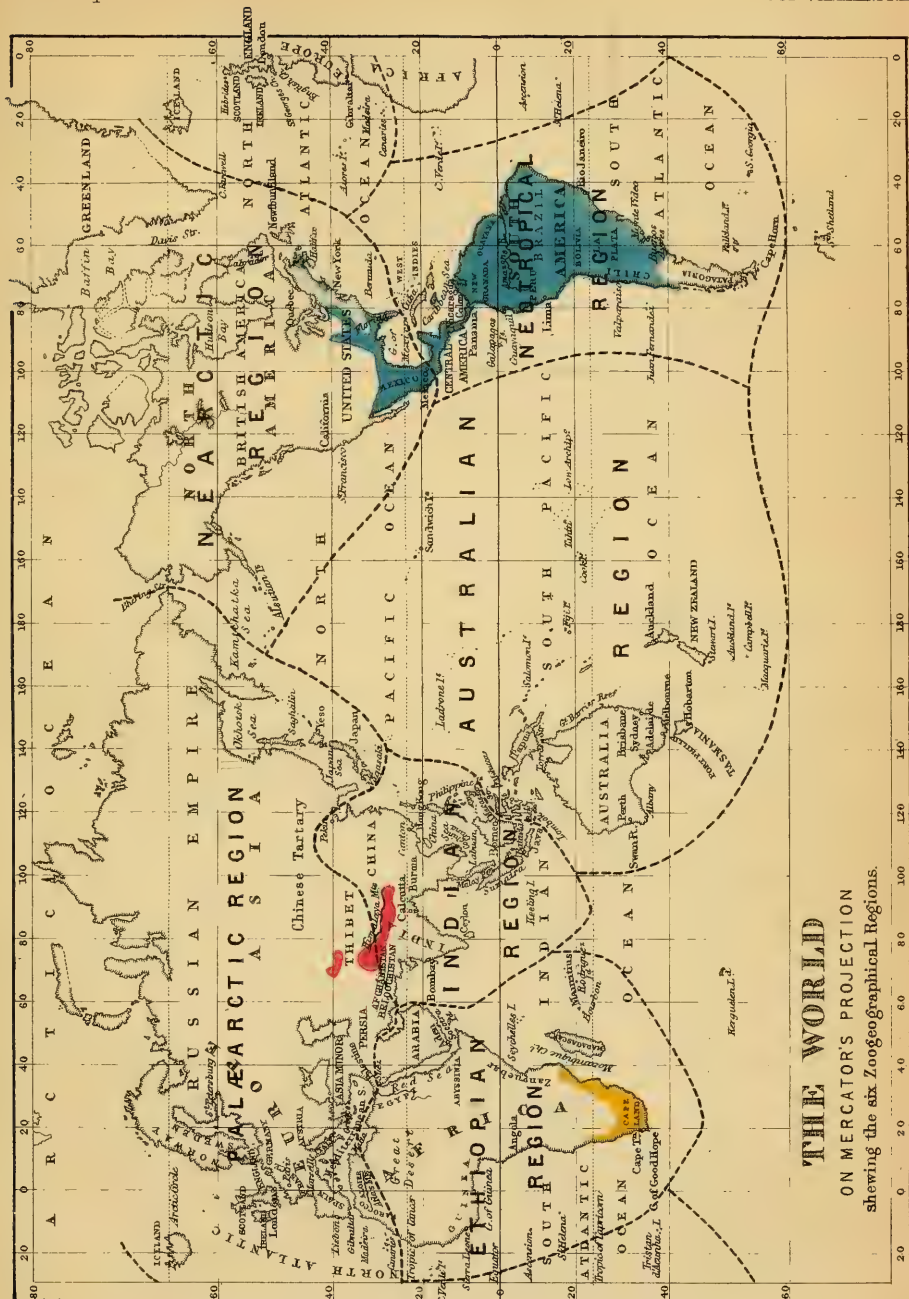
GEOGRAPHICAL DISTRIBUTION OF ACCIPITRES.  
THE VULTURIDÆ.



Stanford's Geog. Inst. 1895, Charing Cross, S.W.

GEOGRAPHICAL DISTRIBUTION OF ACCIPITRES. THE VULTURIDAE.

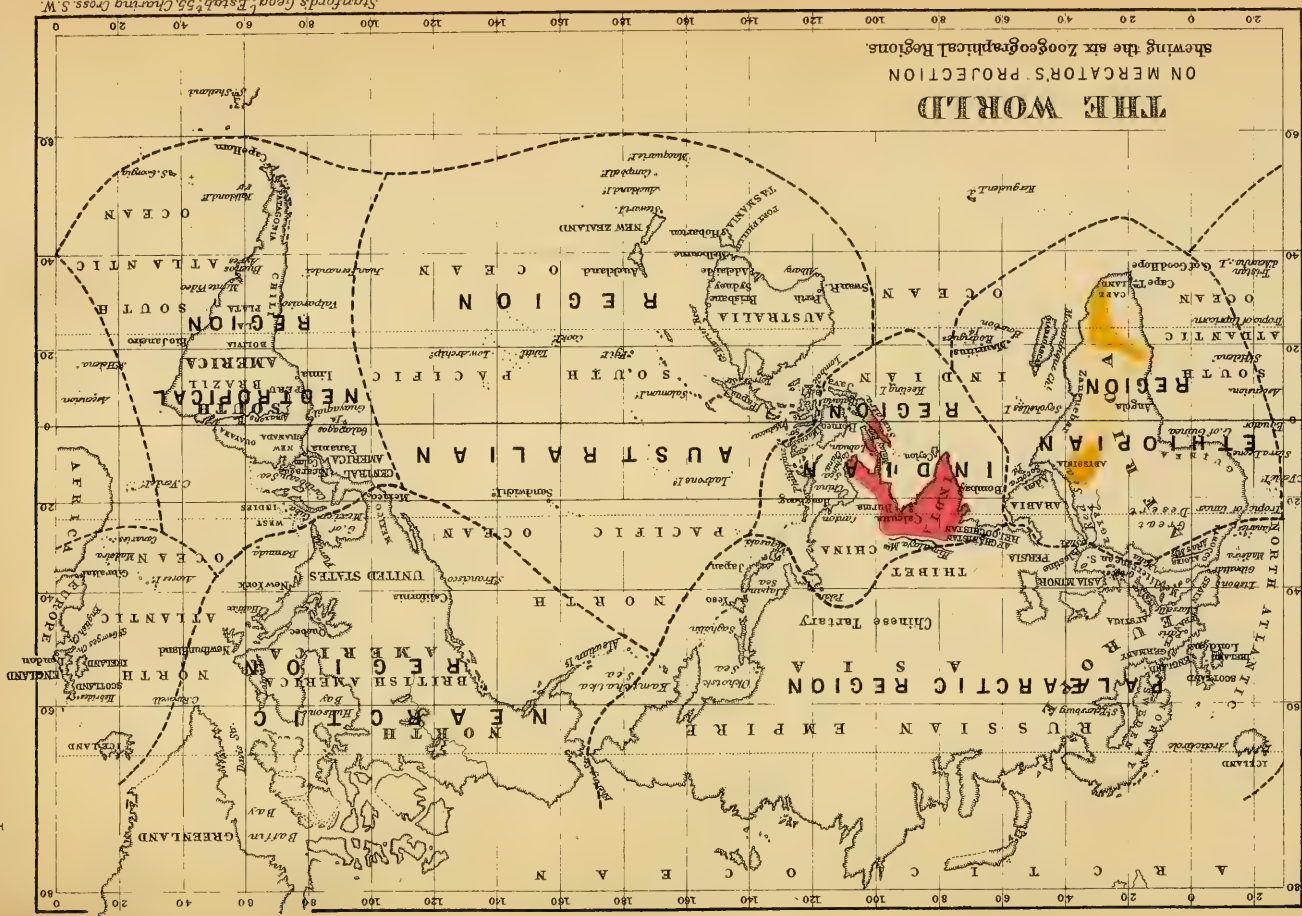
**THE WORLD**  
ON MERCATOR'S PROJECTION  
showing the six Zoogeographical Regions.



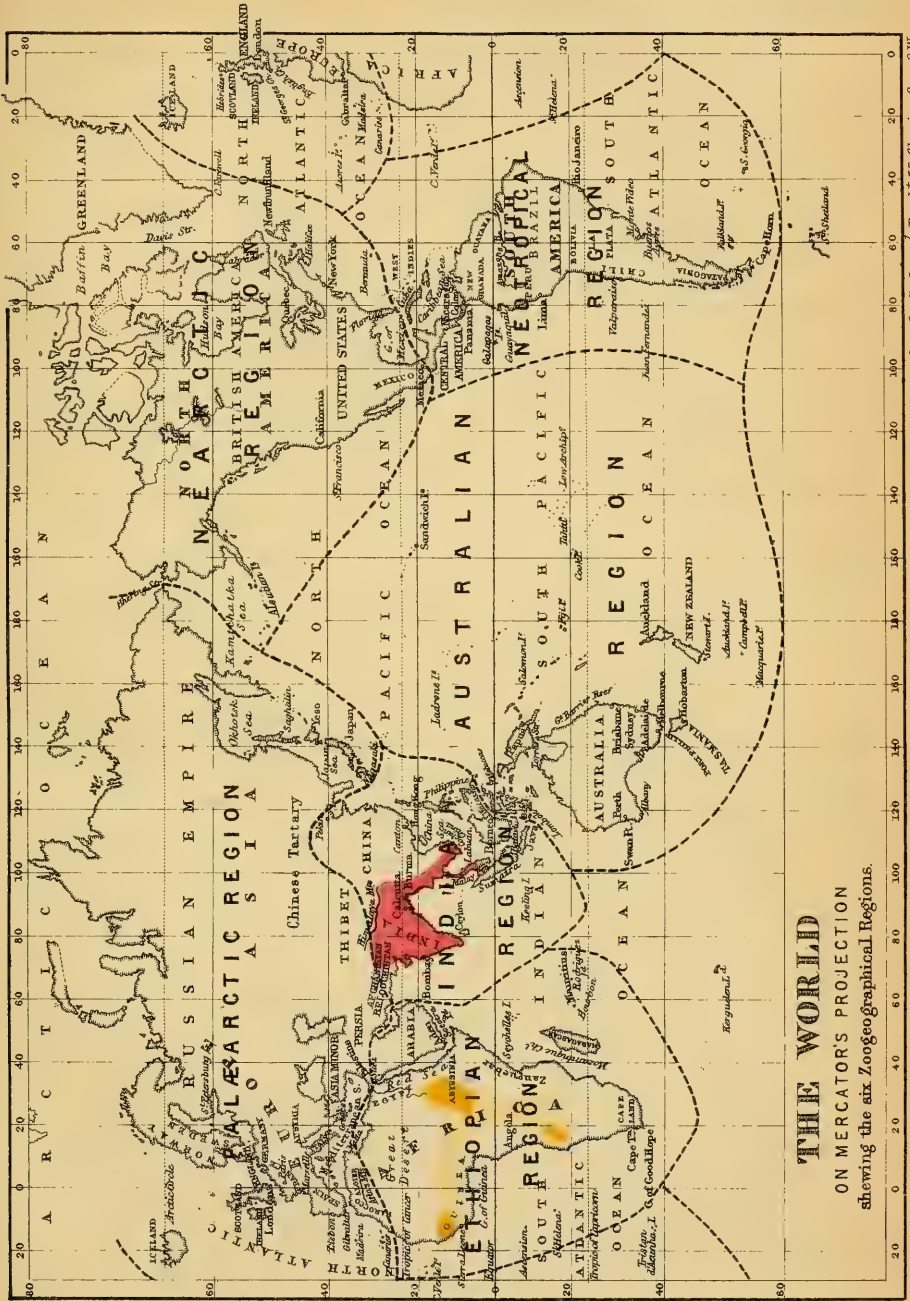
# THE WORLD

ON MERCATOR'S PROJECTION  
showing the six Zoogeographical Regions.

GEOGRAPHICAL DISTRIBUTION OF ACCIPITRES.  
THE VULTURIDAE.



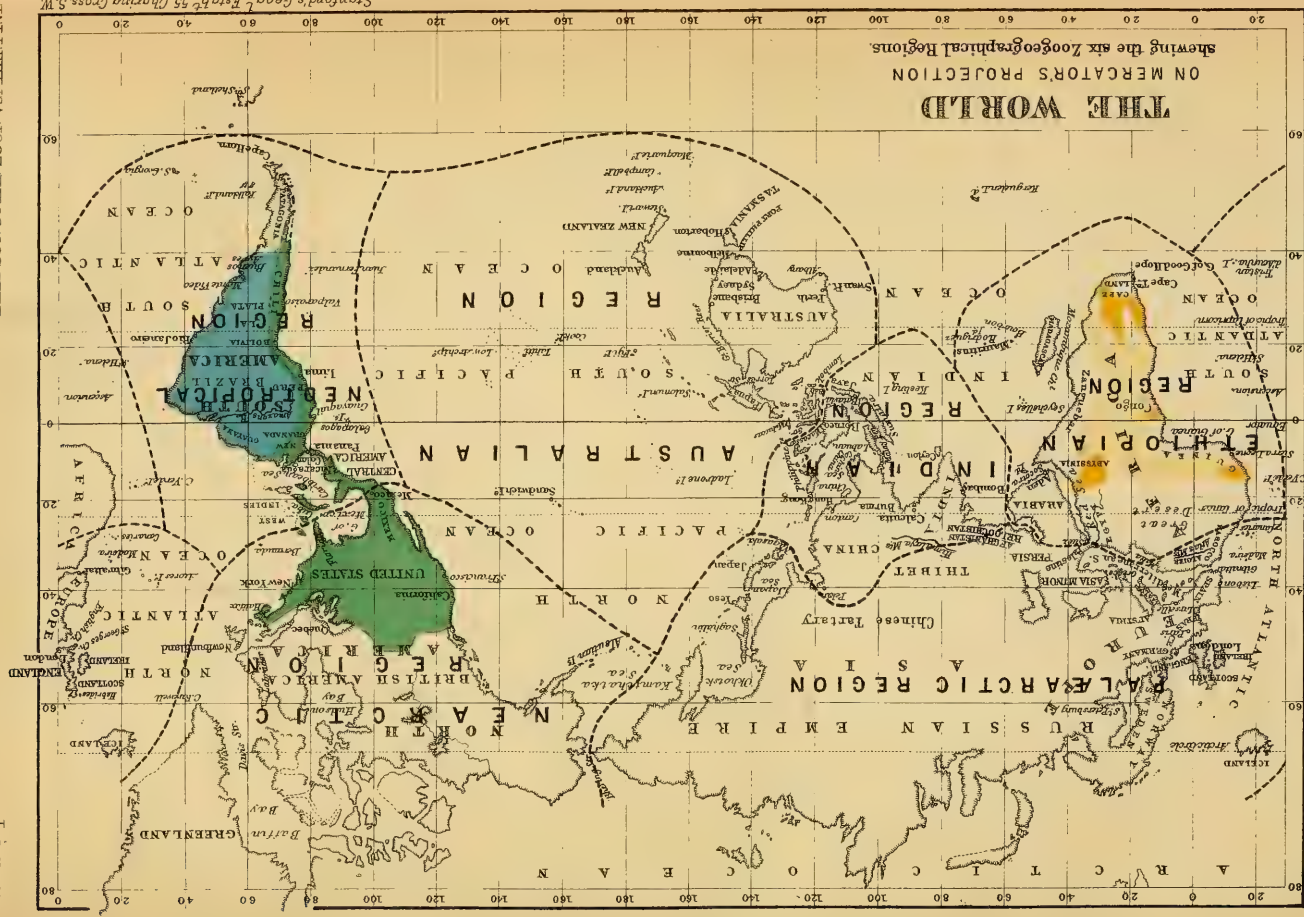
GEOGRAPHICAL DISTRIBUTION OF ACCIPITRES. THE VULTURIDAE.



**THE WORLD**  
ON MERCATOR'S PROJECTION  
showing the six Zoogeographical Regions.

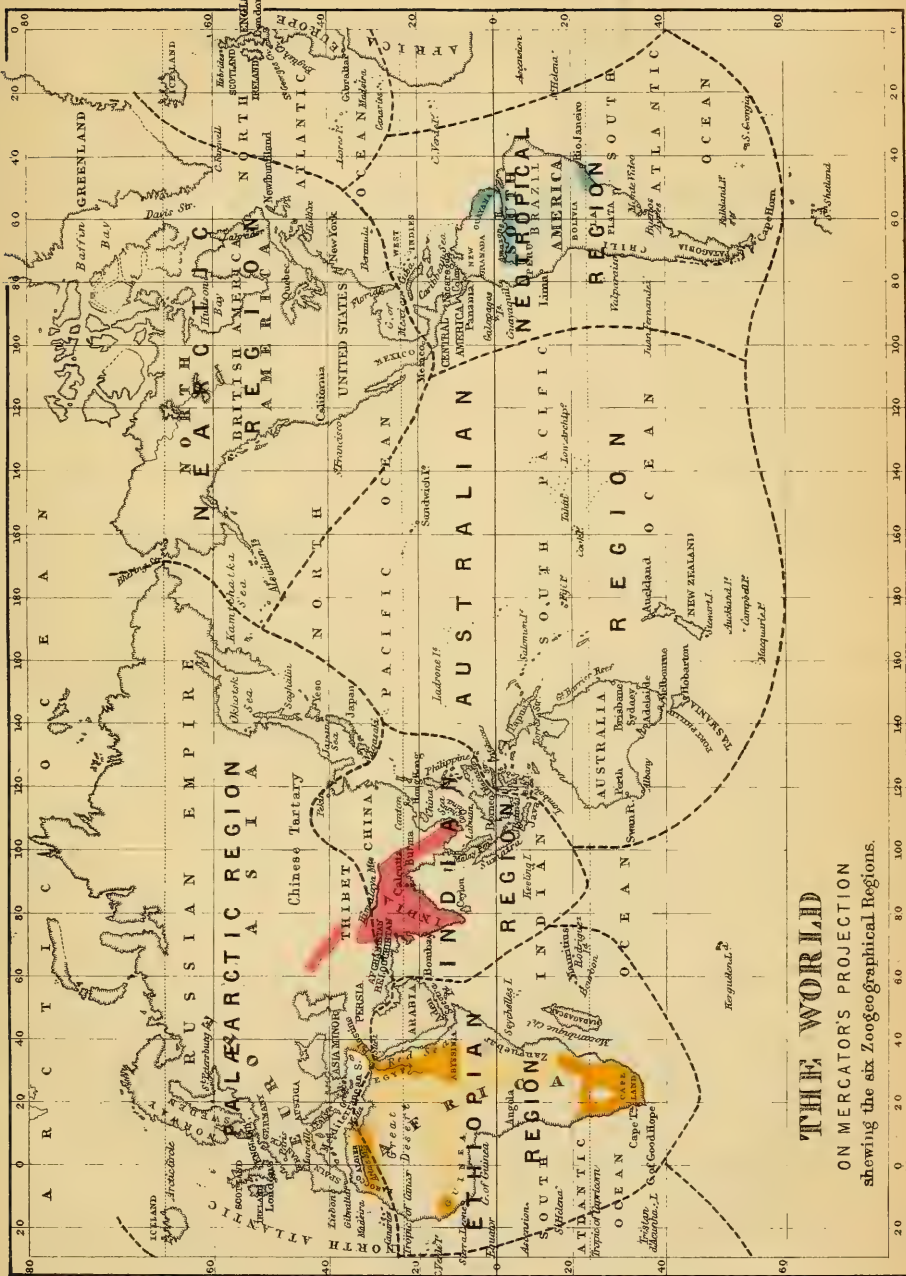
GEOGRAPHICAL DISTRIBUTION OF ACCIPITRES.  
THE VULTURIDAE.

Smithsonian Institution, Washington, D.C.



GEOGRAPHICAL DISTRIBUTION OF ACCIPITRES.  
THE VULTURIDAE.

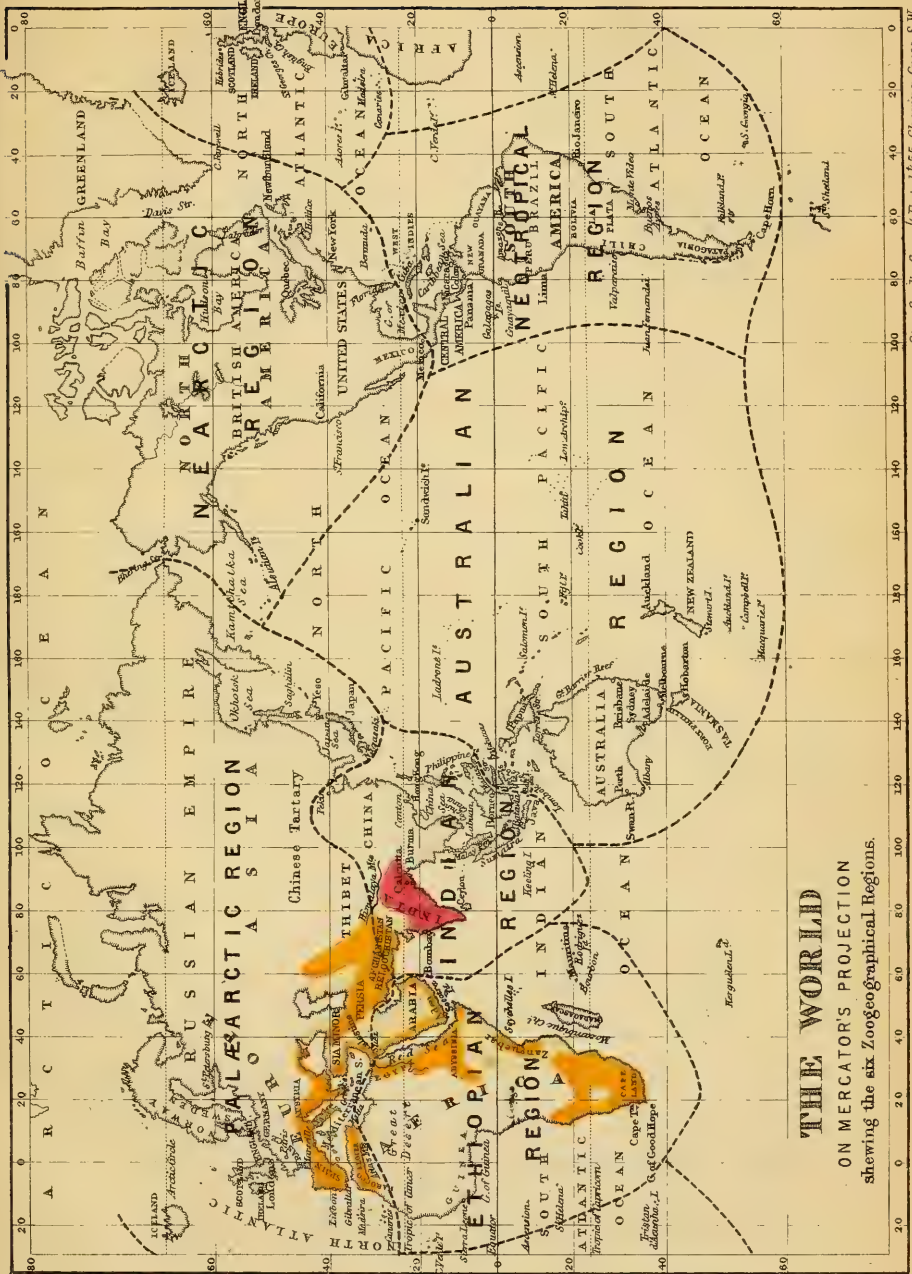




GEOGRAPHICAL DISTRIBUTION OF ACCIPITRES. THE VULTURIDAE.

THE WORLD ON MERCATOR'S PROJECTION showing the six Zoogeographical Regions.

Stanford's Geog. Estab. 55, Charing Cross, S.W.



GEOGRAPHICAL DISTRIBUTION OF ACCIPITRES. THE VULTURIDAE.

THE WORLD

ON MERCATOR'S PROJECTION  
showing the six Zoogeographical Regions.

GEOGRAPHICAL DISTRIBUTION OF ACCIPITRIDÆ.



THE WORLD ON MERCATOR'S PROJECTION shewing the six Zoogeographical Regions.